

## **II. REMARKS**

### ***Claim Rejections - 35 USC § 112***

Claim 10 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. "Alpha-cyano-4-hydroxycoumarin acid" is not supported in the specification and claims as a suitable MALDI matrix substance in such a way to enable one of ordinary skill in the art to make and use the invention. Alpha-cyano-4-hydroxycoumarin acid is not known in the art as a compound for MALDI mass spectrometry. The German priority document (DE 10258674.8) in claim 10 uses "alpha-cyano-4-hydro)ryzimtsaure" which is translated to alpha-cyano-4-hydroxycinnamic acid. For further prosecution, the office is treating the compound as alpha-cyano-4-hydroxycinnamic acid.

Claim 10 has been amended to correctly recite the name of the chemical compound.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention in claim 1 recites the broad recitation "by precipitation", and the claim also recites "preferably by sublimation" which is the narrower statement of the range/limitation.

The offending language has been deleted thus obviating this ground for rejection.

Regarding claims 4, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

The offending language has been deleted thus obviating this ground for rejection.

Regarding claims 19, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

The offending language has been deleted thus obviating this ground for rejection.

***Claim Rejections - 35 USC § 102***

**Claims 19-20 stand rejected under 35 U.S.C. 102(b) as being anticipated by Beecher et al (WO 00/67293).**

As stated by the examiner Beecher teaches a laser desorption time of flight mass spectrometer used with a probe comprising a film of self-assembled monolayer for example decane thiol on gold ("consisting of material impervious to water vapour and, preferably, impervious to light") and MALDI matrix in the openings ("Long-time stable surface formation with at least one MALDI matrix point") wherein the probe is in a vacuum chamber ("surrounded by a hollow body containing a vacuum").

Regarding claim 20, the examiner cited Beecher as teaching that the openings or feature comprises binding functionalities

such as antibodies ("additional biological material on the MALDI matrix point").

Claims 19 and 20 have been amended to depend on claim 1 which contains, *inter alia*, the limitation that the local flatness deviation of the surface formation on a length of 100 mm is <100  $\mu$ m. This parameter is neither disclosed nor suggested by Beecher et al.

Support for the amendment appears at page 6 of applicant's specification at line 9-14.

Applicant respectfully requests favorable reconsideration of this ground for rejection in light of the amendment to the claim.

***Claim Rejections - 35 USC § 103***

**Claims 1-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Beecher et al (WO 00/67293) in view of Dreyfus (USP 5,854,486).**

The examiner has rejected applicant's process and product claims. Applicant has recast claim 1 as a product claim containing the limitation previously contained in claim 16 by way of claims 13-15.

Original claim 16 and newly amended claim 1 contain the limitation that the local flatness deviation of the surface formation on a length of 100 mm is <100  $\mu$ m. This parameter is neither disclosed nor suggested by Beecher et al. or Dreyfus et al.

Beecher et al. discusses thickness at page 7,, lines 26-30 of his specification but does not even mention uniformity.

Dreyfus et al. discusses the thickness of his films at column 4, lines 37-40 and mentions uniformity of thickness at 43-46 allowing a deviation of +/- 50% and preferably +/-10% of the average film thickness. It is evident from the amount of deviation allowed by Dreyfus et al. that the uniformity is not considered a significant factor in his product or process.

With regard to uniformity of product, in speaking to claim 14, the examiner states that Beecher/Dreyfus's teaching that the maximum local flatness deviation of the surface formation on a length of 100 mm would intrinsically be <100  $\mu$ m. This appears contrary to the express teaching of Beecher/Dreyfus as set forth above.

Applicant therefore respectfully requests favorable reconsideration of this ground for rejection.

**Claims 8 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Beecher et al (WO 00/67293) in view of Dreyfus (USP 5,854,486) and further in view of Nelson et al (USP 5,955,729).**

Claims 8 has been amended to depend on claim 2 which claims a process for making a surface formation containing the limitation that the local flatness deviation of the surface formation on a length of 100 mm is <100  $\mu$ m. This parameter is neither disclosed nor suggested by Beecher et al. or Dreyfus et al. and Nelson et al. does not cure this lacuna.

Applicant respectfully requests favorable reconsideration of this ground for rejection.

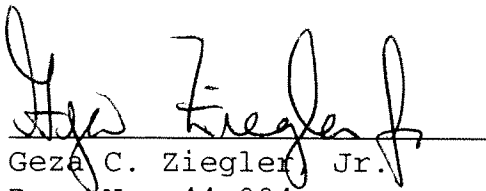
For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application

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Page 9

are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

  
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Date

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